

What is claimed is:

1. An interface module (2a, 2b, 2c, 2d) comprising:  
a first number of a series (5a, 5b, 5c, 5d) of ports (51a, 52a, 53a, 54a, 51b, 51c, 51d) and  
a second number of a series (6a, 6b, 6c, 6d) of ports (61a, 62a, 63a, 64a), where  
a first port (51a, 51b, 51c, 51d) in the first number of a series of ports (51a, 52a, 53a, 54a, 51b, 51c, 51d) is connected by means of at least one data line to a switching control unit (3a, 3b, 3c, 3d) connected to an interface device (4a, 4b, 4c, 4d), and where  
the subsequent input ports (52a, 53a, 54a) in the first number of a series (5a, 5b, 5c, 5d) of ports are connected in order by means of at least one respective data line to the ports (61a, 62a, 63a, 64a) in the series of the second number of a series (6a, 6b, 6c, 6d) of ports, starting with a first (61a) in the series of the second number of ports.
2. The interface module as claimed in claim 1,  
where the interface device comprises a number of Ethernet interfaces (4a, 4b, 4c, 4d, 11).
3. The interface module as claimed in claim 1, where a specification of the interfaces of the interface device (4a, 4b, 4c, 4d) is taken place by means of at least interface utilisation module (20) which has to be connected to the interface device.
4. The interface module as claimed in claim 1, where data lines are in the form of separate and multipole bus lines (B1, B2, B3, B4).
5. An Ethernet switch comprising a header device (1) with a crossbar device (7) and a number of downstream interface modules (2a, 2b, 2c, 2d), particularly a number of downstream interface modules, having a first number of a series (5a, 5b, 5c, 5d) of ports and a second number of a series (6a, 6b, 6c, 6d) of ports, respectively, such that in each case the same one (51a, 51b, 51c, 51d) in the series of the first number (5a, 5b, 5c, 5d) of ports is connected to a switching



control unit (3a, 3b, 3c, 3d) coupled to an interface device (4a, 4b, 4c, 4d), and the further ports (52a, 53a, 54a) in the series of the first number (5a, 5b, 5c, 5d) of ports are connected to a port in the second number (6a, 6b, 6c, 6d) of the series of ports by means of respective data lines routed in cascade form.

6. The Ethernet switch as claimed in claim 5,

where the crossbar device (7) comprises a multiplicity of bus lines (B1, B2, B3, B4) which can be connected in a star-shaped form to respective switching control units (3a, 3b, 3c, 3d).

7. The Ethernet switch as claimed in claim 5, where the header device (1) comprises an interface device (11) which is connected to the crossbar device (7) by means of a bus line directly or via a switching control unit (9) in the header device (1).

8. The Ethernet switch as claimed in claim 5, where the interface device comprises a number of Ethernet interfaces (4a, 4b, 4c, 4d, 11).

9. The Ethernet switch as claimed in claim 5, comprising at least one interface utilization module (20) connected to at least one interface device (4a, 4b, 4c, 4d, 11) for the specification of at least one interface (44a).

10. The Ethernet switch as claimed in claim 9, where the interface utilization module (20) is constructed as being an active module, a passive module and/or a (buffer)memory module.

11. The Ethernet switch as claimed in claim 5, where the data lines (B1, B2, B3, B4) are each in the form of separate, multipole G.Link connections.

12. The Ethernet switch as claimed in claim 5, where the crossbar device (7) comprises a PCI interface for connecting a management function device (8).

13. The Ethernet switch as claimed in claim 5, where the design of the Ethernet switch is modular and/or extendable.



14. The Ethernet switch as claimed in claim 5, where the bus lines (B1, B2, B3, B4) are arranged serially.
15. A method for providing a multiplicity of switchable Ethernet terminals (4a, 4b, 4c, 4d), where a crossbar device (7) is connected to a multiplicity of separate multipole data lines (B1, B2, B3, B4) having switching control units (3a, 3b, 3c, 3d), which can be lined up in modular fashion and are associated with respective Ethernet terminals (4a, 4b, 4c, 4d), by means of a respective predefined data line (B1, B2, B3, B4).
16. The method as claimed in claim 15, in which each switching control unit (3a, 3b, 3c, 3d) is produced as part of an interface module (2a, 2b, 2c, 2d) such that information to be transmitted to a downstream interface module (2b, 2c, 2d) from the crossbar device (7) is routed through the respective upstream interface module (2a, 2b, 2c) in cascade form.
17. The method as claimed in claim 15, where the determination of the plurality of switchable Ethernet terminals (4a, 4b, 4c, 4d) is taken place by connecting interface utilisation modules (20) thereto.